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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,039	07/12/2001	Gary A. Demos	07314-013001	2223
20985	7590	12/23/2004	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			LEE, Y YOUNG	
			ART UNIT	PAPER NUMBER
			2613	
DATE MAILED: 12/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/905,039

Applicant(s)

DEMOS, GARY A.

Examiner

Y. Lee

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-87 is/are pending in the application.
- 4a) Of the above claim(s) 1-7, 16-36, 45-65 and 74-87 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-15, 37-44 and 66-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/8/04 has been entered.

### ***Election/Restrictions***

1. Applicant's election without traverse of Figure 2, claims 8-15, 37-44, and 66-73 in the reply filed on 6/25/03 is acknowledged.
2. Claims 1-7, 16-36, 45-65, and 74-87 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected embodiment, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/25/03.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2613

4. Claims 8-15, 37-44, and 66-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagihara (5,374,958) in view of Reininger et al (5,426,463) for the same reasons as set forth in Section 5 of the previous office action, dated 4/5/04.

Yanagihara, in Figures 1, 11, 13, and 14, discloses substantially the same method for reducing chroma noise as specified in claims 8-15, 37-44, and 66-73 of the present invention, comprising in a YUV video image compression system utilizing a variable quantization step size  $q$  and a quantization parameter  $QP$  representing the size of the step where an increase in  $QP$  corresponds to a larger quantizing step size, selecting one of reducing chroma noise during compression of a color video image (e.g. still block) and achieving higher compression during compression of the color video image (e.g. motion block); in response to selecting reducing chroma noise, utilizing a first  $QP$  value for the Y luminance channel of a color video image (e.g.  $4 \cdot SQ$ ), and utilizing a second  $QP$  value for at least one of the U and V color channels of the color video image (e.g.  $8 \cdot SQ$ ); and in response to selecting achieving higher compression utilizing a first  $QP$  value for the Y luminance channel of a color video image (e.g.  $4 \cdot SQ$ ), and utilizing a second  $QP$  value for at least one of the U and V color channels of the color video image (e.g. 8), wherein the second  $QP$  value 8 is greater than the first  $QP$  value (e.g.  $4 \cdot SQ$ ), so that at least one of the U and V color channels has coarser quantization resolution than the luminance channel.

With respect to claims 9, 10, 13, 14, 38, 39, 42, 43, 67, 68, 71, and 72, Yanagihara also discloses that the second  $QP$  value (e.g.  $8 \cdot SQ$ ) is determined by applying a bias value 2 to the first  $QP$  value (e.g.  $4 \cdot SQ$ ); and compressing the color

video image (Fig. 11), after application of the first and second QP values, to a compressed output image 13.

It is noted Yanagihara differs from the present invention in that it fails to particularly disclose quantizing the color channels with greater resolution than the luminance channel and any decompression details as specified in claims 8-15, 37-44, and 66-73. Reininger et al however, in Figures 2 and 3, teaches the concept of such well known variable second QP value 14 is less than the first QP value (i.e. variably controlled), so that at least one of the color channels C has greater quantization resolution than the luminance channel Y; and decompressing the compressed output image (16, 17) using the first and second QP values to obtain an uncompressed video image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having both the references of Yanagihara and Reininger et al before him/her, to exploit the common variable bit rate quantizing method as taught by Reininger et al in the YUV video image compression system of Yanagihara in order to adaptively quantize the luminance and color channels to efficiently achieve bandwidth reduction.

### ***Response to Arguments***

5. Applicant's arguments filed 11/5/04 have been fully considered but they are not persuasive. In response to applicant's argument on pages 3-5 of the Remarks that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., different QPs for chroma and luma in the

Art Unit: 2613

same macroblock) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### **Conclusion**

6. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lee whose telephone number is (703) 308-7584.

The examiner can normally be reached on (703) 308-7584.

Art Unit: 2613

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Y. Lee  
Primary Examiner  
Art Unit 2613

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